

ceeded to have it prepared for the British Museum, to which institution they subsequently presented it.

The dimensions are as follow:—

	ft.	in.
Total length . . . . .	6	3
Height of dorsal fin . . . . .	2	5
Breadth of it at base . . . . .	1	3
Height of ventral fin . . . . .	2	3
Girth . . . . .	9	0

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January 23, 1849.

William Yarrell, Esq., Vice-President, in the Chair.

The following papers were read:—

1. NOTE ON THE SPERMATOCYTES OF THE GIRAFFE (*Camelopardalis Giraffa*). BY GEORGE GULLIVER, F.R.S.

In the testicle of the Giraffe that died on the 14th of this month in the Society's menagerie, the semen was tolerably abundant, and there were plenty of spermatozoa in the vas deferens.

The drawings now shown were made from these spermatozoa. They are represented on a scale of  $\frac{1}{4000}$ th of an English inch, and magnified about 700 times in diameter.

These spermatozoa resemble in shape, size and chemical characters, those of many other mammals noticed in my former observations in the Proceedings of the Society, July 26, 1842, page 101; April 11, 1843; February 24, 1846; and January 22, 1847, page 105.

The age of the Giraffe was about fifteen years.

2. ON SOME NEW OR LITTLE-KNOWN SPECIES OF MONKEYS.  
BY JOHN EDWARD GRAY, ESQ., F.R.S. ETC.

The older authors have described two species of *White-nosed Monkeys* which have been called *Hocheurs* by the French.

In the British Museum we have specimens of each of these species, and also of two very distinct kinds, which appear either not to have occurred to preceding authors, or to have been confounded by them with the species described by Erxleben.

CERCOPITHECUS MELANOGENYS. The Black-cheeked Monkey.  
(Mammalia, Pl. IX. fig. 1.)

Dark olive, minutely yellow grised; face, cheek, forehead, chest and hands black; a large cordate spot on the nose and a small spot

on each temple white. Throat, under-part of the body and inside of the legs whitish; the front of the shoulders, outside of the limbs, end of the tail blackish. Ears, the middle of the back, and upper part of the tail, rufous.

In the British Museum collection there is a half-grown specimen of this species which died in a menagerie near London, and was said to have come from Western Africa.

The Black-checked Monkey is easily known from *Cercopithecus nictitans* by its yellow punctulated fur and cordate form of the spot on the nose; the latter character equally distinguishes it from *Cercopithecus petaurista*, from which it is also separated by the blackness of its cheeks and the greyness of the outside of the limbs, and the redness of the middle of the back and the tail.

This species was indicated in the 'Annals of Natural History' for 1845, but is redescribed and figured here for the purpose of comparison with the next.

#### CERCOPITHECUS LUDIO. The Ludio.

(Mammalia, Pl. IX. fig. 2.)

Blackish, minutely yellow grised; face, temple, crown of the head, shoulders and fore-legs, black; outer side of the hinder legs and end of tail blackish; large oblong spot on the nose white; throat, upper part of the inside of arms, and lower side of the body, whitish; rump and under side of base of tail dark reddish brown.

*Hab.* West Africa.

In the British Museum there is a nearly full-grown specimen of this species, which was procured from a menagerie in Liverpool, and was said to have been brought from the west coast of Africa.

This is at once known from two other species which have the fur punctated with yellow, viz. *C. petaurista* and *C. melanogenys*, by the large size and erect oblong form of the white spot on the nose, and especially by the absence of any white on the cheek or temples; it is easily distinguished also by the general black tint of the fur, and especially by the red hairs of the rump.

In the course of last year there was exhibited in the Gardens of the Society a short-tailed American monkey, which was regarded by several eminent zoologists as a species of *Cebus* which had lost part of its tail; but there was a peculiarity in the position of the thumb as regarded the fingers, which at once showed that whatever might be the natural length of its tail, it evidently did not belong to the genus *Cebus* as at present restricted. The examination of the animal after death showed that it was a most distinct genus, and nearly related to, if not a variety of, *Brachyurus Ouakari* of Spix.

I may observe that the genus *Brachyurus* was established by Spix in his work on American Monkeys for two species, viz. 1. the *Simia Chiropotes* of Humboldt (the *S. Sagulata* of Trail), which has been generally referred to the genus *Pithecia*; and 2. *Brachyurus Ouakari*. Spix in the same work restricted the genus *Pithecia* to the *Saki* or Long-haired American Monkeys.

The examination and comparison of the skull of the short-tailed

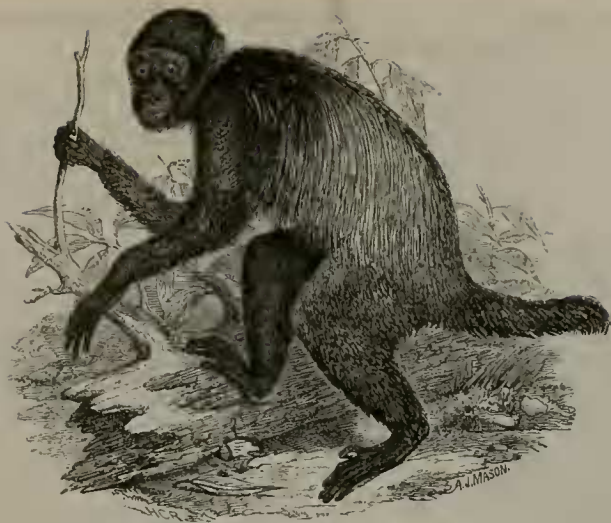


Walford del. et lith.

Printed by Ballman del. & Watson.

1. CERCOPITHECUS MELANOGENTIS, & CERCOPITHECUS (1870)





monkey and of the allied genera have induced me to think that the American Monkeys with long hairy tails, and with six grinders, may be divided into two very natural subfamilies, characterized by the position and form of the cutting teeth.

The first of these groups I should propose to call *Callitrichina*: they have small erect cutting teeth, forming a regular series with the canines. This group contains the genera *Callithrix* and *Chrysothrix*, with small diurnal eyes, and *Nyctipithecus*, with large nocturnal eyes.

The second group, which may be called *Pitheciana*, have the cutting teeth large, converging together, and separated from the canines by a large space, and their under ones more or less shelving. This group contains three genera, viz. :—

1. *Pithecia*. The fur elongate, dry, harsh; the tail club-shaped; the crown like a wig, and the chin slightly bearded; the lower cutting teeth rather shelving.

This is the genus *Pithecia*, as restricted by Spix, the *Yarkea* of Lesson, containing *P. monachus*, *P. leucocephalus*, and *P. rufiventer* of Geoffroy.

Spix (tab. 37. f. 4) figured a skull which appears to belong to a species of this genus, but he does not indicate its name.

2. *Brachyurus*. The fur silky, short; tail elongate club-shaped; the crown like a wig, and the chin largely bearded on each side; the lower cutting teeth are rather shelving; limb short and straight. Containing *Cebus satanas* of Hoffmannseg, which is the type of Spix's genus.

Lesson has given the name of *Chiropotes* to this group, and *Cucajao* to a second group, established on the *Simia melanocephalus* of Humboldt, which is probably only a badly stuffed specimen of this species.

Spix, in his work on Brazilian Monkeys, figures a skull which appears to belong to this genus, but it is like several others on the same plate, without any name, t. 37. f. 5.

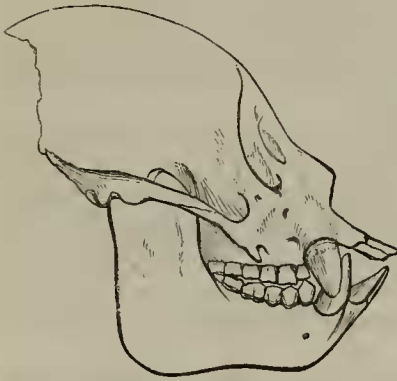
3. *Ouakaria*. The fur short, silky; tail short, subcylindrical, the

crown with short hair; the chin scarcely bearded; the lower cutting teeth very much shelving; legs elongate.

This genus forms part of the genus *Brachyurus* of Spix; and if Spix had not evidently described the teeth, &c. of his first species in his generic character, I should have been induced to have retained for this group the name of *Brachyurus*, which is more applicable to it than to the one to which it is applied; and indeed M. Isidore Geoffroy appears to have so applied it.

Several species have been described which chiefly differ in the length of the tail; as, 1. *Ouakaria Spixii*; *Brachyurus Ouakari*, Spix, Brazil, t. 8, with the tail about one-third the length of the body. 2. *Ouakaria calvus*; *Brachyurus calvus*, I. Geoff. Rev. Cuvier. 1847, 137, much paler in colour, but it is very doubtful if the shortness of the tail does not depend on the imperfection of the specimen, and the colour on partial albinism.

We have specimens of *B. calvus* in the British Museum, presented by M. Bourcier. The skull may be thus described:—



The cutting teeth projecting; the upper one broad, especially the two middle ones; lower one elongate, narrow, more sloping, and projecting like those of *Indri*. Canines conical, far away from the cutting teeth, leaving a large vacancy; flattened in front; they are flattened before and behind, placed rather obliquely, with a sharp inner edge. The skull is very unlike that of the *Cebidæ*; most allied to that of *Pithecia leucocephala*, but the cutting teeth

in that species are not so proclined.

The converging, slender, shelving, cutting teeth in the lower jaw of this genus, as well as its slender limbs and the shortness of its tail, bear a certain resemblance to the *Indri* amongst the *Lemuridæ*.

The form of the lower jaw also offers a good character for the distinction of the genera.

1. Lower jaw not dilated behind.      2. Lower jaw dilated behind.

*Atelina* (part).

*Ateles*.

*Cebina*.

*Cebus*.

*Pitheciانا* (part).

*Pithecia*.

*Jacchina*.

*Jacchus*.

*Midas*.

*Mycetina*.

*Mycetes* (much).

*Lagothrix* (moderately).

*Atelina* (part).

*Brachyteles* (moderately).

*Callitrichina*.

*Callithrix*.

*Chrysothrix*.

*Nyctipithecus*.

*Pitheciانا* (part).

*Brachyurus*. *Ouakaria*.

## 3. DESCRIPTION OF A NEW SPECIES OF HERPESTES.

BY J. E. GRAY, Esq., F.R.S. ETC.

## HERPESTES PUNCTULATUS.

Reddish grey, minutely black and grey punctured; face redder. Under-fur black; long hair brown, upper half whitish, with a broad, black, subapical band and a bay tip. Tail-end black.

*Hab.* South Africa; Port Natal.

This species is allied to *H. Mutzigella* in size, appearance, and the black tip of the tail, but differs from that species in being redder, and in the face being red bay.

It agrees with *H. badius*, A. Smith, in the colour of the end of the tail; but that species differs from it in the nearly uniform bay colour and in the length of the hair.

I may here remark, that *H. badius* offers two very distinct varieties, one being uniform red bay, the hair being of a uniform colour except a few just over the shoulder-nape which have a black subapical ring. This is the variety figured by Dr. Smith in the 'South African Zoology.' The other with most of the hairs of the back and sides having long white tips edged below with a black band, giving the back a grisled appearance.

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The foregoing papers were followed by an address from DR. MELVILLE, M.R.C.S., in continuation of his observations commenced on December 12, 1848, concerning the IDEAL VERTEBRA, of which he has furnished the following abstract:—

I employ the term '*vertebra*' in the extended sense in which it is used by M. Geoffroy St. Hilaire and Prof. Owen, as equivalent to a segment of the endo-skeleton, or to the proximal, more or less ossified, element of that skeleton.

The ideal or typical vertebra is the most complicated possible vertebral segment, exclusive of the ichthyic or other peculiarities; it furnishes the key to the actual vertebræ in the same individual series or in the skeletons of the different vertebrate classes.

An actual vertebra may exist as a unity prior to, or even during chondrosis, but becomes resolved by ossification into a variable number of distinct and independent ultimate elements; which therefore are not repetitions of one and the same elementary 'body' or 'lamina.'

The number of these ultimate elements varies in the actual vertebræ in the same spinal column, and also in those constituting the skeletons of the different vertebrated animals.

The ideal vertebra contains the greatest number of these elements, most of which form arches attached to, or springing from, a central piece or element, and protecting the great nervous and vascular axes and the visceral system.

The upper or neural arch is composed generally of three elements, two lateral, (neural laminae, or neuropomata); and an upper or mesial